4thly. The livers of dogs contain sugar, whether the diet is animal or vegetable.

5thly. Under favourable circumstances, saccharine matter may be found in the liver of an animal after three entire days of rigid fasting.

6thly. The sugar found in the bodies of animals fed on mixed food is partly derived directly from the food, partly formed in the liver.

7thly. The livers of animals restricted to flesh diet possess the power of forming glucogen, which glucogen is at least in part transformed into sugar in the liver;—an inference which does not exclude the probability of glucogen (like starch in the vegetable organism) being transformed into other materials besides sugar.

8thly. As sugar is found in the liver at the moment of death, its presence cannot properly be ascribed to a *post mortem* change, but is to be regarded as the result of a natural condition.

II. "Hereditary Transmission of an Epileptiform Affection accidentally produced." By E. Brown-Séquard, M.D. Communicated by Dr. Sharpey, Sec. R.S. Received December 23, 1859.

It is well known that the number of facts which seem to prove that an accidentally produced affection may be transmitted by parents to their offspring is still small, and that serious objections have been raised against most, if not all, the facts of this kind. The following observations seem to show peremptorily that, at least in one species of animals, this kind of transmission may occur.

I have shown that certain injuries to the spinal cord, in Guinea-pigs and other Mammals, are followed, after a few weeks, by a convulsive disease, very much like epilepsy. For several years it has been frequently observed that the young of a number of those epileptic animals, which I kept in my laboratory, were at times attacked with epileptiform convulsions. For many months I have made regular observations on this curious subject, and I have ascertained, by careful watching, that six young guinea-pigs which had frequent attacks of convulsions, were the offspring of one male and two female

guinea-pigs rendered epileptic in consequence of an injury to the spinal cord.

This observation derives its importance chiefly from the fact that, if epilepsy is an affection which naturally exists among guinea-pigs, it must be very rare, as I have never seen it except in the progeny of individuals operated upon and rendered epileptic; and yet the number of healthy guinea-pigs that I have kept for months is really immense. It seems therefore that we can conclude, from these observations, that epilepsy, or an affection which very much resembles it, may be transmitted from parents to offspring, even when it has been accidentally produced in one of the parents,—at least in one species of animals.

February 9, 1860.

Sir BENJAMIN C. BRODIE, Bart., President, in the Chair.

The Right Honourable Sir Edward Ryan was admitted into the Society.

The following communications were read:—

I. "On the Resin of the *Ficus rubiginosa*, and a new Homologue of Benzylic Alcohol." By WARREN DE LA RUE, Ph.D., F.R.S., and HUGO MÜLLER, Ph.D., F.C.S. Communicated by Mr. DE LA RUE.

(Abstract.)

In this communication the authors give an account of a new alcohol homologous with benzylic alcohol ($C_{14} H_8 O_2$) which they have found occurring in the state of a natural acetic ether in the exudation from an Australian plant known as the *Ficus rubiginosa*.

This acetic ether, for which they propose the name of Acetate of Sycoceryl, constitutes about 14 per cent. of the crude resin; the remainder consisting principally of an amorphous resin which they name Sycoretin.

The different degree of solubility of the various constituents in alcohol, afforded the means of the separation of the one from the other; none of them present any remarkable properties except the